

THE NAVAL SAFETY CENTER'S AVIATION MAGAZINE

approach

August 2002



Myth of the Alaskan Qual

I'll Sleep When I'm Dead

approach

The Naval Safety Center's Aviation Magazine

August 2002 Volume 47 No. 8

On the Cover A UH-1N lands at MCAS Miramar's parade deck.

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Mission Statement

Mishaps waste our time and resources. They take our Sailors, Marines and civilian employees away from their units and workplaces and put them in hospitals, wheelchairs and coffins. Mishaps ruin equipment and weapons. They diminish our readiness.

This magazine's goal is to help make sure that personnel can devote their time and energy to the mission, and that any losses are due to enemy action, not to our own errors, shortcuts or failure to manage risk.

We believe there is only one way to do any task: the way that follows the rules and takes precautions against hazards. Combat is hazardous enough; the time to learn to do a job right is before combat starts.

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BC Ready Room Gouge

August Thanks

Thanks for helping with this issue...

Lt. Steve Koffler, VS-33

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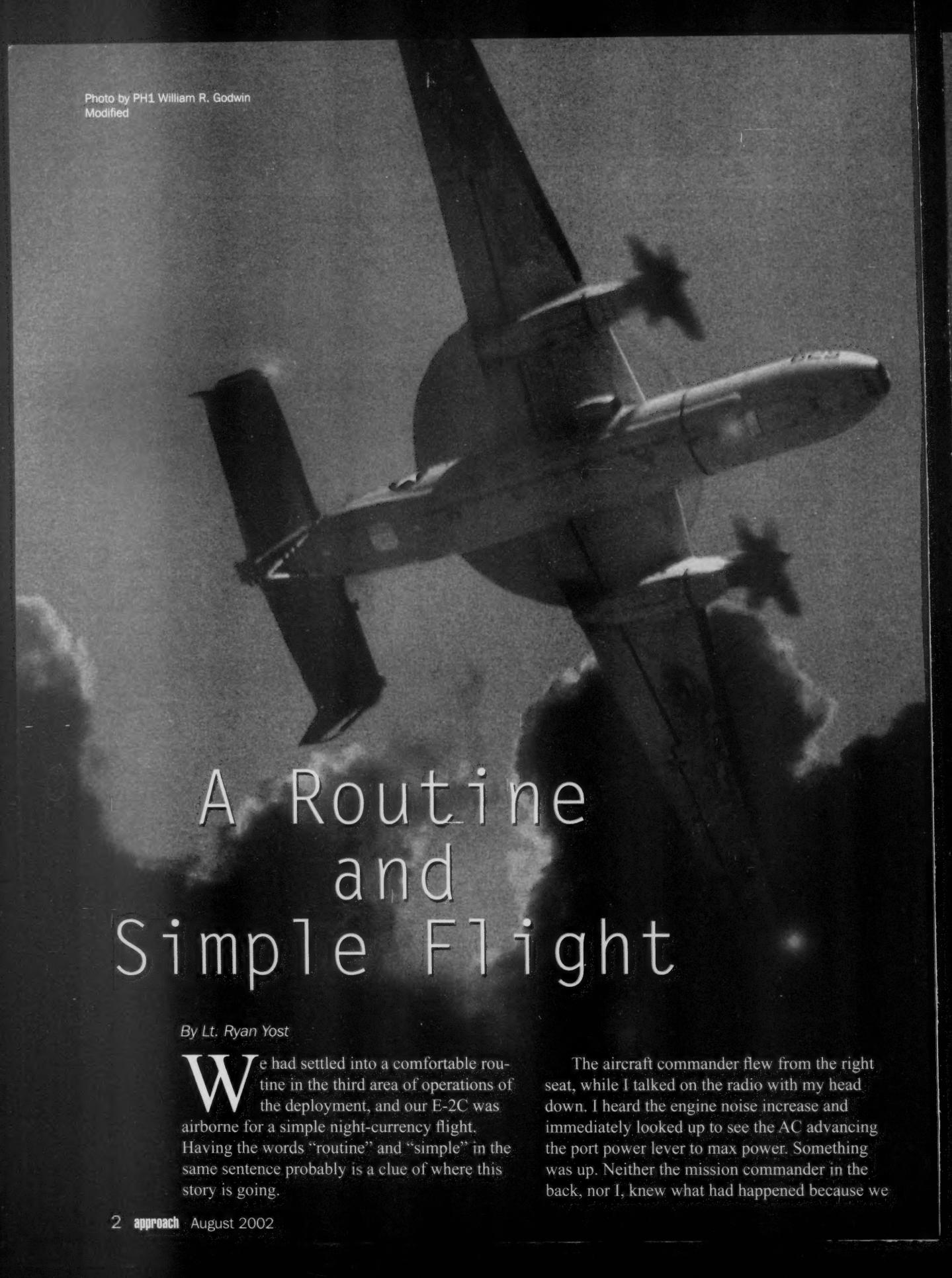
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A Routine and Simple Flight

By Lt. Ryan Yost

We had settled into a comfortable routine in the third area of operations of the deployment, and our E-2C was airborne for a simple night-currency flight. Having the words "routine" and "simple" in the same sentence probably is a clue of where this story is going.

The aircraft commander flew from the right seat, while I talked on the radio with my head down. I heard the engine noise increase and immediately looked up to see the AC advancing the port power lever to max power. Something was up. Neither the mission commander in the back, nor I, knew what had happened because we

had been talking on the radio and hadn't heard the AC's first two intercom announcements.

As I released the mic switch, I heard the AC announce, "Good rpm," as he pointed at the gauge. A quick scan of the eyebrow panel confirmed the AC was responding to a light for the main-propeller pump on the port engine.

A propeller-pump light indicates either a loss of pitch-change fluid or a failed pump inside the pitch-control unit. Either situation may lead to the complete loss of pitch control and can lock the propeller at a fixed pitch. This gripe creates directional-control difficulties and, under certain conditions, can lead to the complete loss of directional control.

I quickly ended my radio conversation and pressed the master-test switch for the lights to make sure the standby-pump light for the port propeller wasn't burnt out. The port engine's rpm still was within limits. We secured the port engine and feathered its propeller before we lost all the pitch-change fluid from the pitch-control unit on the port propeller.

We had a single-engine approach through an 800-foot overcast layer to a pitching deck, but we were as prepared as we could be.

Next, we checked to make sure the propeller fully had feathered. We talked to the mission commander and declared an emergency to the ship. We had started our descent from FL230 when the aircraft commander told me to set the air-conditioning switch to override. This is a step on the post-shutdown checklist, which we had not begun, and this action did prompt me to call for the rest of the post-shutdown procedures.

The crew worked together to get our ducks in a row as we headed back to the ship. I flew the aircraft, while the AC determined the bingo fuel required for our primary divert field. We discussed single-engine flight characteristics and approach techniques and reviewed our options. The mission commander and AC explained our dilemma and plan with the squadron rep on Mom.

We switched up marshal, and the controller sent us to the top of the stack. Obviously, not everyone had gotten word of our situation.

We told the controller of our problem and politely stated our request to come down first. Minutes later, we again were marshalled on a different radial at Angels six, just above the overcast layer. We had a single-engine approach through an 800-foot-overcast layer to a pitching deck, but we were as prepared as we could be.

After we had made a few laps in marshal, the controller told us to proceed inbound and to commence the approach. We started a slow descent to 1,200 feet and made a large play for the final bearing, which was 60 degrees away. I searched for glide slope and centerline the entire way. We finally broke out at 600 feet and a mile behind the ship—high and fast. With the ship in sight and a ball on the lens, I made a big correction to get on glide slope and centerline. I fought lineup all the way. Paddles called for a little power in the middle, and the ball dropped as I made a last-minute lineup correction at the ramp. We were elated at the tug of the arresting cable. We also heard a loud bang and felt the aircraft shudder when our nosewheel ran over "Fast Eddie," as we drifted well left on the rollout. My lineup and power corrections obviously hadn't been enough, but we were safe on deck.

During our debrief, the AC mentioned he had experienced early symptoms of hypoxia less than a minute after we had secured the engine, air conditioner and cabin pressure. He recognized his physiological condition and immediately had me set the air-conditioning switch to override. He recognized his symptoms because of his low-pressure chamber training.

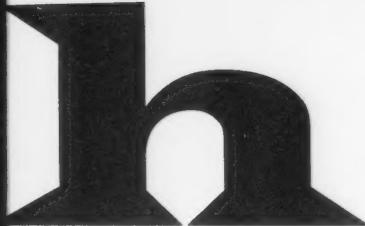
We missed the master-caution light and its associated cabin-altitude light because numerous other caution lights were lit at the same time. We did diagnose the original problem and shut down the engine.

A routine and simple flight doesn't exist. We did not expect a propeller-pump light to illuminate. None of us had thought through the issues of securing an engine at FL230. In the middle of the emergency, we did not fully analyze all the caution lights, assuming instead all were associated with the secured engine—they were, but not exactly as we had thought.

Lt. Yost flies with VAW-124.

IVY t of the Alaskan





Qual

By Lt. James Zawrotny, USCG

"When I was in Kodiak, we would..."

"One time, when I was in Sitka..."

"You think this is bad, one time we were going to Attu..."

I've heard many Alaskan stories, anecdotes and lessons learned during my first tour as a Coast Guard C-130 pilot. I qualified as a copilot in January 1999, at CGAS Clearwater, Fla., and immediately was inundated with predictions of my upcoming tour in Kodiak—still four years in the future.

They shared several thousand warnings about the weather, and it took only a couple of months to get tired of hearing about Alaska. I had enough trouble dodging thunderstorms in the Caribbean and trying not to overshoot runway 10 at Guantanamo Bay. How bad could Alaska be?

Every pilot and flight engineer had a bag full of stories about hair-raising near-misses from their Alaskan exploits. Nearly all aircrew, despite their claims of almost dying several times,

wanted to go back. That idea seemed insane to me.

I upgraded and honed my aviation skills over the next two and a half years. When I wasn't flying, I schemed how to avoid a tour in Kodiak. This effort was a direct result of how sick I was of Alaskan stories. Hawaii sounded like a lot more fun.

Then, a strange thing happened. I was on the phone with my detailer and asked for Alaska. I wasn't crazy; I wanted to challenge myself as a professional pilot, and I knew I had to go where the action is. Also, being a doubting Thomas, I wanted to verify those tall tales of the Alaskan winter and to disprove the rumor of the Alaskan qualification.

The Alaskan qual syllabus was rumored to be an extensive familiarization with the op area and the big, bad Alaskan winter. Every aircraft commander had to endure the syllabus before he could sign for a plane, regardless of rank, experience and designation. The truth is, the Alaskan qual is a formal-qualification syllabus required to fly into CGAS Kodiak and CGAS Sitka. The qual has no formal designation above the unit level.

If we are qualified as ACs, then we are capable of flying every mission. A Coast Guard air station never would disregard the rules and effectively downgrade us just because of a little turbulence and ice. "Come on, I can handle this," I thought, "I'm an AC!"

I rudely was awakened when I arrived in Kodiak October 30, in time for winter. I kept my feelings about the Alaskan qual to myself and grumbled privately about the lack of faith the command had in its pilots. After only three flights, I had changed my mind.

During my flights in the southeastern United States, I had shot exactly one approach where we broke out at minimums. Those days were gone, and I was unprepared for what next hit me.

We were on our way back to Kodiak, from Valdez, and night had fallen. A snowstorm had moved in, and the winds had picked up. We shot the ILS into Kodiak, broke out at minimums in a snowstorm, had a 30-knot tailwind, and the runway was covered with packed snow and ice. A 2,500-foot mountain marks the end of the Kodiak runway.

Six months ago, I wouldn't have tried such an approach; I would have found an alternate. I asked the other pilot if we could get into Kodiak. Fortunately, he had been stationed here for six years, so he just looked at me, smiled, and said, "We'll see, won't we?" I'm glad it was dark in the cockpit, because the look of pained anxiety on my face may have scared even him.

Our normal landing speed was 110 knots for our weight and configuration. Because of the conditions, though, our main wheels touched down at 141 knots. I stopped the plane in a surprisingly short distance, taxied clear, and tried to keep my voice calm as we parked. At that moment, I believed the Alaskan qual was a good idea.

Two other flights reinforced my belief and prompted me to champion the cause of the Alaskan qual. The first was a logistics run to resupply the LORAN station on St. Paul Island, which is in the middle of the Bering Sea. The ice edge had crept south to within 10 miles of the island, and the weather had not been above 500 and 2 with blowing snow for four days. The only approach available was the NDB-A. We know how reliable those things are. After one missed approach, we tracked outbound again. Suddenly, we saw a break in the clouds and recognized some of the terrain. Fortunately, I had flown to St. Paul twice the previous week, and it doesn't take long to become familiar with an island that has few distinguishing features.

We requested a contact approach from Anchorage center and, to my surprise, were granted the request. I've always thought a contact approach is an emergency procedure, so I questioned the other pilot, who was a four-year Alaskan veteran. He looked at me without humor and said, "How else do you propose we land?" The debate was settled; we circled and landed without incident. I laughed as we stepped off the plane, and the visibility dropped to less than one-quarter of a mile. If I had to make up a bad-weather scenario, I couldn't have outdone reality that day.

The situation that cemented the qual for me occurred on a takeoff from Attu Island. Attu is the westernmost island in the Aleutian chain and has extremely unpredictable weather patterns. The day's forecast called for VFR, which gave us a view of CG1600, a Herc that crashed on Attu in 1982. It provided a sobering reminder we needed to be on top of our game. The crew at LORAN Station, Attu, reported two feet of packed snow

covered the runway and would make any attempt to quickly stop an adventure. I was thankful we didn't land long.

When our offload was complete, a snow squall rolled in from over Mt. Terrible. We started engines and taxied for takeoff, not worried about other traffic because, let's face it, who else is flying out here?

Coast Guard regulations require one-quarter-of-a-mile visibility for operational missions. We waited 10 minutes at the departure end of the runway while being pounded by horizontal snow. When a hole opened, we applied power and flew away.

I asked the pilot next to me if these conditions were normal, and his reply shocked me, "I've never seen it this bad before." We later learned the snow squall that had delayed our departure lasted six days. It's a good thing we didn't decide to wait it out. We would've been there until June.

In Alaska, conditions force us to operate an airplane in a wider range of its performance capability than anywhere in the Lower 48. Yes, if you are a qualified AC, you can handle it, but you need to experience these conditions with someone who has done it before. You have to prove to yourself that you and the plane can do much more than you thought was possible.

Despite the difficult winter and challenging conditions, I love the missions in Alaska. I used to think flying in these conditions was insane, but, now, the previously unthinkable is routine and enjoyable—or perhaps winter dementia has set in.

The Alaskan qual exists for the safety of our aircrews. Since the conditions are harsh and can change rapidly, you must adjust your game plan to match the environment. You can't learn by reading an article or watching a video; it is something you must experience to appreciate. To all who haven't yet experienced a tour in Alaska, I assure you the Alaskan qual is real, and it is for your own good.

Professional curiosity forced me to chase down the myth of the Alaskan qual. It possibly dates to the early 1970s, and yes, Alaskan pilots complained about it then, too. Someday, someone will uncover the exact origin of the myth. Just like those who look at a blurry picture of the Loch Ness monster or Bigfoot, I continue looking and wondering how it all got started. Who am I to expose the truth? 

Lt. Zawrotny is stationed at USCG Air Station, Kodiak, Alaska.

OUT OF GOOD IDEAS

By Cdr. Curtis Phillips

I still remember the feeling of dread that washed over me when I realized the seriousness of my predicament. It happened in the normally placid, winter skies of the Southeast, on a radio-instrument flight during my T-2 instructor-pilot tour. The series of events that took place during the flight shook me so vigorously it has taken me 10 years to write about it.



My student and I were scheduled for a cross-country and decided to escape the winter doldrums of northwest Florida by taking our jet to Key West. We broke the trip into two short legs to give us plenty of fuel to complete the required approaches. The first leg was planned from NAS Pensacola to NAS Dobbins (in Atlanta), and the second leg would take us on to Key West.

My first indication of potential problems should have come during the weather brief at Pensacola. The forecaster said, although Dobbins forecasted 1,200-foot-broken ceilings at our arrival time, the conditions probably merited a forecast for 800-foot ceilings. Part of his concern was the low temperature-dewpoint spread, and he even cautioned that we shouldn't be surprised to see reduced visibility when we broke out. Foolishly, I was more comfortable with the weather because of his willingness to issue a more conservative forecast than the Dobbins forecasters. I felt he was erring on the side of caution, and that made me less concerned than I should have been.

We checked the weather at our alternate, considered the proximity of Atlanta to Pensacola, and were certain ample divert fields and fuel existed should we run into problems. At this point, we were well within OpNav 3710 requirements.

Our dilemma started to unfold as we neared Atlanta. I distinctly remember looking down at the solid layer of white clouds that blanketed the entire Southeast. They stretched in every direction as far as I could see, but, armed with my pessimistic forecaster's caution, I was sure weather wouldn't be an issue. Further, we had filed for, and were expecting, a penetration descent for the high-TACAN approach to Dobbins—something we would prefer for our

fuel-thirsty jet, whose economy suffers at lower altitudes.

With our single-radio Buckeyes, checking weather was not always easy, especially when we talked to busy controllers. We still were in class-A airspace when we requested frequency changes for weather updates. My student tuned the ATIS frequencies, beginning with Dobbins. After hearing nothing, we tried Dobbins METRO. Again, no one was home. We double-checked our frequencies and decided to call a nearby Air Force base for weather.

Atlanta Center switched us to approach. We made the switch, reported in with our altitude, and promptly were told to begin a descent for vectors to the approach at Dobbins. We requested the penetration, but that didn't fit into their plans for us, so we grudgingly descended and requested another frequency change to get weather information. We still were headed straight for Dobbins.

After starting down, we finally reached a weather briefer at the Air Force base. Unfortunately, his news was not good. Ceiling in the Dobbins area was 400-foot overcast and dropping, and the pesky temperature-dewpoint spread was dwindling. Most of the suitable divert fields in the area also were reporting low ceilings—far below the forecast we received in Pensacola. I started to feel a little uneasy as we leveled at 5,000 feet.

We watched in stunned amazement as the controller vectored us away from our intended destination. Although I tried to determine his plan for us, he was swamped with traffic in the Atlanta area and had little time for me. Moreover, I failed to press the issue enough. Poor weather at all the area airports was exacerbating his problem of too many airplanes, too little airspace, and too little time. The controller vectored us around the Atlanta area, promising to sequence us in with a dozen other arrivals.

To add to my problems, this cloud-top tour of the greater Southeast was eroding my fuel reserve. I recall watching the fuel-quantity gauge and actually seeing the needle move to the left. Getting concerned, we declared minimum fuel, but with the current weather and the controller's workload, it didn't affect our routing. Finally, after several anxious moments, we got vectors back toward the airfield, with the assurance these would be radar vectors to the PAR. Time, however, had not been kind to us. The low-altitude vectoring had devoured all our fuel reserve, and, though we searched diligently, none of the fields in the area had passable weather. During the delay, Dobbins weather continued to deteriorate, and we now faced shooting a PAR to published minimums—200-foot ceilings and one-half-mile visibility. We almost were committed to Dobbins.

With my student pilot in back dutifully under the hood—blissfully unaware of our dire straits—we started our approach. As a former E-2 pilot, I had flown several approaches to 100 and one-half. I knew if we did not break out on this approach, I would continue from the front seat before allowing the student to execute the missed approach. While this clearly was a violation of OpNav 3710, I had precious few options. We



probably had enough fuel to get around the PAR pattern one more time, then it would be a matter of asking for a radial to do a controlled ejection.

Dobbins weather continued to deteriorate, and another lap around the pattern would do little good. A feeling of dread swept over me as I relived the chain of events that led to my present quandary.

I always have considered myself lucky—blessed, to be more precise—but my student flew the most “rails” PAR I ever had seen. The weather was exactly 200 and one-half. Upon reaching the MDA, I had the landing environment in sight, took the controls, and landed the airplane. No one was feeling more blessed than me.

To this day I still carry the lessons of that flight:

- Never get lulled into a false sense of security because someone else has identified a potential hazard for you. The weather briefer's pessimistic forecast left me feeling we had taken a conservative approach to things. What it should have done was raise the hair on the back of my neck.

- Don't push or penetrate without weather information. In this case, OpNav 3710 states,

“An instrument approach shall not be commenced if the reported weather is below published minimums...” [See analyst's note] We did not violate the letter of the law—weather was at or above minimums—we violated the intent. We did not know what the reported weather for Dobbins was until after we descended.

- Resist or refuse routing that you don't understand. We had no idea that Atlanta Approach was going to vector us around a GCA box pattern that encompassed the entire Atlanta metro area.

- When it comes to fuel, there never is plenty.

- Always have an out. I allowed myself to get vectored into a box without an honorable exit.

I was an experienced pilot and instructor, and, yet, through a seemingly harmless chain of events, I almost arrived at a place where I was in an airplane and out of good ideas. That is not a place anyone wants to be. 

Cdr. Phillips flew as T-2 instructor with VT-4 at the time of this incident. He currently is the executive officer of VRC-30.

Analyst comment: The author's decision to commence an approach was based on weather, and he also mentions his intent. OpNavInst 3710.7S discusses single- and multi-piloted approach criteria. This is what the instruction says:

Single-piloted criteria:

Aircraft shall not commence an approach if the weather is below published minimums for the type of approach being conducted, unless there is no intent for landing and the facility in question is not the filed destination or alternate.

Multi-piloted criteria: An approach can be commenced when reported weather is at or below published landing minimums as long as the aircraft has the capability to proceed to a suitable alternate in the event of a missed approach.

Cdr. Buzz Bauers is the aircraft operations division head at the Naval Safety Center.



Photo by PH3 Brian Fleske
Modified

Fighting 1 v 1 on

By Lt. Nicholas Mungas



We were scheduled for a good deal 1 v 1 BFM (basic fighter maneuvers) sortie. The flight would be just good old-fashioned bending the jet around, while trying to maintain sight and consciousness—the type of flight that brings all those 1 v 1 briefing items to reality. I was scheduled as flight lead, flying with our safety officer.

We settled in for the brief after the usual rounds of JOPA vs. Hinge trash-talking in the ready room. The brief was thorough but somewhat shorter than normal, since we only had to cover comm flow and the sequence of BFM sets for the tactical portion of the hop. Training rules were covered in detail, including departures and out-of-control-flight (OCF) procedures. We slow-walked to our jets. Weather was fantastic in the whiskey areas off the Atlantic coast, and it was shaping up to be a great hop.

Butterfly high-aspect BFM is truly an enjoyable way to spend a flight. Neutral merges and the ability to be

as slow or as fast as you'd like at the first merge always has been my favorite. At the "fight's on" call, we aggressively went nose low. More of the same followed until we met near the deck with a nearly neutral pass. I had a positional advantage but was slower, and I expected my opponent to go two-circle across my tail. Looking through the HUD, I saw 240 knots passing 6,000 feet. I decided to extend into the merge and then go aggressively out of plane, nose high.

At the merge, my opponent turned across my tail in two-circle flow. At 5,700 feet and accelerating through 258 knots, I started up. I was on the HUD, following the 10-percent rule for the first 30 to 40 degrees of climb, then looked over my left shoulder to verify my opponent tracking in two-circle flow. That sneaky Hinge had reversed into a one-circle, nose-high,

right-hand turn in the oblique. Based on his lift-vector placement, it appeared

I was going to be the first one down-range—not good. His reversal had given me a little turning room to work with, so I got the nose back to the

horizon. I reoriented my lift vector, stopped my down-range travel, and transitioned to a flat scissors. I rolled the aircraft and increased alpha to get the nose to the horizon. A couple of seconds later, I heard the AOA-limit tone.

Did I mention I still was looking at my opponent? We were now in one-circle fight, and the aircraft had continued to track nose high. I wasn't rolling into the oblique, but I was rolling around the near-vertical. Because of this situation, my increased pull did nothing more than bleed the remaining airspeed. When I heard the AOA tone, I thought I was tickling the limiter by pulling too hard and had bunted the nose. I finally looked at the HUD when the tone didn't go away. What I saw was not good. I was 70 degrees, nose high, and decelerating rapidly through 100 knots. I made one last-ditch effort to salvage an impending departure by rolling the aircraft inverted with rudder and then pulling the nose to the horizon. It responded crisply to my roll inputs, but when I tried to pull, the nose did not track, and I was living in tone.

Instruments

Photo by Matthew J. Thomas

Somewhere in all this, a "Knock it off, I'm ballistic" call was made, and, as the aircraft stopped responding to control inputs, I initiated OCF procedures. After I released the controls, the nose pushed over—just as the NATOPS flight-characteristics chapter says it should—bringing me closer to vertical. As I reached my apex, I saw 48 knots (the lowest that can be displayed), 7,800 feet, and greater than 90 alpha in the HUD. I retarded the throttles to idle and placed both hands on the towel racks.

The aircraft violently pitched, nose forward; it was strong enough to make me feel like I was coming out of the seat and to give me a great view of the blue water below. FA-18 OCF procedures state, "Passing 6,000 feet, dive recovery not initiated, eject." I was 100 percent certain I was about to become intimately familiar with that passage. I didn't think there was any chance to be in control by 6,000 feet.

One thought slowly trickled through my mind as I stared at the HUD and the water below: "Someone's going to have to call the skipper and tell him I just put a jet in the water." I was so convinced of my imminent chute ride as the nose broke the horizon, I took my hands off the towel racks and placed them on the ejection handle.

The aircraft went through some post-departure gyrations. The nose initially went to 90 degrees, nose low, pitched back up near the horizon, then back down where it wandered around pure nose low. Approaching 6,000 feet in the HUD, I still had spurious gyrations in yaw, and airspeed was only about 120 knots, but the nose had stabilized nose low. Seeing this, I had a glimmer of hope. I took my right hand off the ejection handle, grabbed the stick, and made a small, coordinated, rudder and aileron input as my wingman called out, "Passing 6,000 feet." I saw the same in the HUD.

The aircraft rolled. I transmitted, "I've got it, it's flying." I did not want to snatch on a pull with my airspeed still slowly accelerating, so I waited another second until airspeed accelerated through 180 knots. Then I began the recovery. Post-flight HUD-tape analysis showed I started recovery below

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Crew-Resource Management

Situational Awareness

Assertiveness

Decision-Making

Leadership

Communication

Adaptability/Flexibility

Mission Analysis



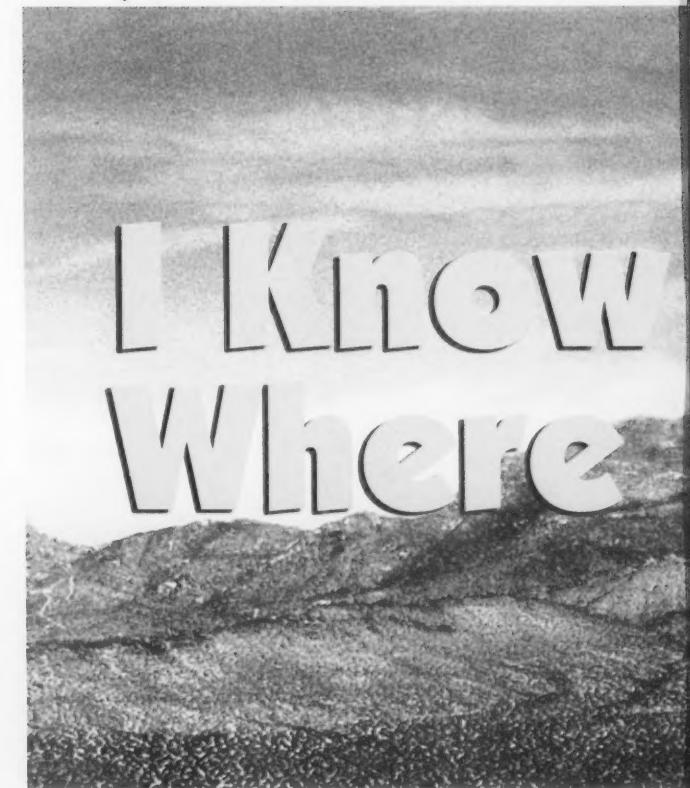
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CRM Program Manager



By LCdr. Ken Durbin

I was a happy 2P. Our crew members were the new guys in the northern Red Sea, and we were tasked to inspect ships suspected of violating the UN sanctions against Iraq. The ops were a no-brainer, and we quickly settled into our groundhog routine. We were standing alert when called to combat and given a new mission.

A chief on board a Navy ship had amputated his finger on a coffin locker. The ship's corpsman recommended a transfer to a hospital in western Saudi Arabia. We were tasked with the job.

I jumped into the charts and pubs to plan the flight. We needed to clear an 8,000-foot mountain range, but, other than that, this flight had fun-meter possibilities. We manned our SH-60B and departed.

We were not on deck long when the corpsman, our crewman and our nine-digit chief arrived just outside the rotor arc. The chief's arm was bent and wrapped from armpit to wrist to elevate the injured nub. He held up an IV bag in

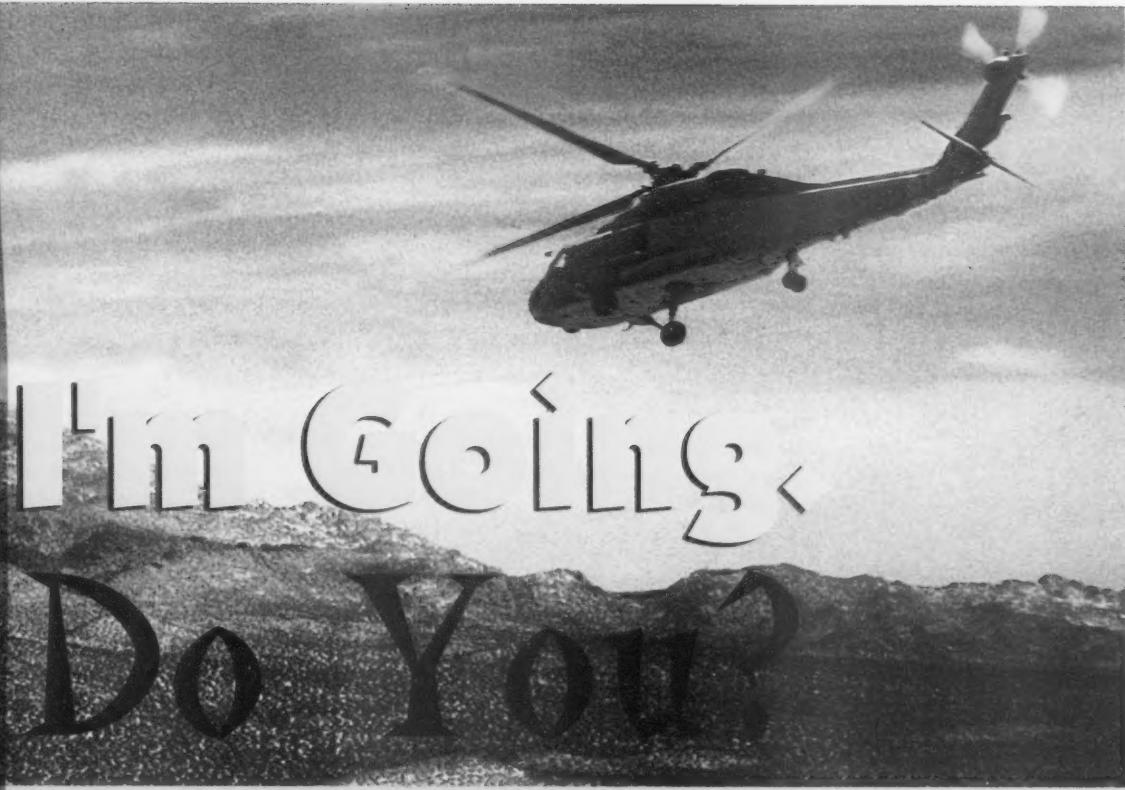


Photo composite

his good hand. A plastic bag full of ice and his finger were pinned to his chest. He was under the influence of feel-good medicine, and, as a result, his tongue looked like that of a panting puppy. I cringed and held the stick a little tighter as he entered the rotor arc. He was at least 6-feet tall and hardly stooped on entry. Once the crewman reported he was strapped in, we lifted for our two-hour flight to the hospital.

The weather was great, and I learned that western Saudi Arabia resembles Arizona, complete with mesas and canyons.

We picked out the hospital against the desert landscape on our arrival. I reported the landing checklist complete to the HAC. I then evaluated the landing site and told the HAC what I had seen as we circled the hospital. Located above the third floor was a large, clearly marked helicopter-landing pad. Three sides were unobstructed. Adjacent to the fourth side were elevated hospital buildings. Off to the side of the

pad and next to the building, three people in white coats were waiting with a gurney.

I told him I would call rollout for lineup, but the HAC stopped his turn 90 degrees early. He said he had the landing spot in site and was on final. We were at 450 feet. I looked out and down to identify what he was lined up on. I saw a square parking lot with a gate and a guard shack on one end. The perimeter of the parking lot was lined with about 16 ambulances. Two dumpsters were located in one corner. In the center of the parking lot, I barely could make out a large H within a circle. Both had been painted over with black paint to match the asphalt.

I explained that according to the turnover packet we had received from the previous detachment, he was lined up on the old helo spot. It no longer was in use, but he continued his approach. I looked over at the 9 o'clock position and watched the puzzled look on the faces of the hospital personnel, waiting at the elevated spot. I

scrambled for the nav bag and pulled a copy of the lessons-learned message from another 60B crew that had made this trip. I read verbatim the paragraph describing the new elevated helo-landing pad, but the HAC continued. In an authoritative voice, I recommended he wave off this approach, circle again, pass me the controls, and read the message himself. He told me that we were landing at the pad in front of us. Nothing was left for me to do but sit on my hands—hey, he's the HAC.

I called descent rates, ground speed, and anything else I thought he might be interested in knowing. As we transitioned to a hover, I noticed the parking lot seemed smaller than I expected. The ambulances seemed closer. The two dumpsters let loose some of their holdings, creating a tornado of FOD in front of us. Plastic bags swirled around us. We sandblasted the parked cars and shook the guard shack. Our crewman called our tail clear, and we landed.

I was way past unhappy. The HAC, on the other hand, was pleased with himself and his landing. After we shut down, he disembarked, told me to stay with the aircraft, and left with the crewman to escort the nine-digit chief to medical assistance. I sat there conducting a one-on-one debrief with myself. What had I missed? I reread the message and found nothing that would lead me to believe we had landed at the correct spot.

My post-mission evaluation was cut short by arrival of the guard. He motioned to the gate as it opened. Suddenly, a large garbage truck swung into the parking lot. I barely got unstrapped, turned off the rotor brake, and turned the head in time to prevent the truck from pranging the tip cap on a main-rotor blade. It was so close that, as the truck backed out, I had to rotate the head in the opposite direction. As I was dancing with the garbage truck, moving the head back and forth, our crewman returned and couldn't restrain himself from laughing out loud. The truck eventually left.

Next, the guard produced a camera and asked for a photo of himself and our crewman in front

of the aircraft. As I framed them, I noticed a small, metal, Sears temporary-storage shed in the background—the kind your dad used to store his John Deere riding mower. The roof was detached from the shed on all four sides. I nonchalantly moved my subjects to change the background. Who can say how that shed became damaged? Then the crewman and I conducted a FOD walk-around.

The HAC returned, smiling and handing out miniature soda cans. We started the aircraft, sandblasted the cars, rocked the guard shack, and kicked more biomedical waste out of the dumpsters. We lifted and departed for the ship.

I look back on that incident and try to apply what I since have learned about crew-resource management. I failed many times that day. First, I failed the preflight planning. We should have briefed, and our landing site should have been crystal clear to all. We had the info before the flight and had no reason to debate on final.

Second, I failed to communicate. I was sure the landing site was elevated, and we were lined up for the wrong one. I failed to articulate my position. Being right is of little use if you fail to convince others that you are right. You must appear confident.

Finally, I was not assertive. I should have assumed control of the aircraft, demanded that the HAC read the message, and circled the hospital once more. Instead, I shut up and sat still once the HAC made his choice known.

We never heard anything about the chief or his finger. I don't know if we affected the successful reuniting of the chief with his digit. I don't want to know. We never heard anything about the roof on the tin shed, either. We took a perfectly simple mission and executed it as wrongly as we possibly could. 

LCdr. Durbin is the OinC for HSL-51 Det 6, assigned to the Forward Deployed Naval Forces (FDNF) in Atsugi, Japan.

5,000 feet. I still was concerned about over-rotating and departing again, so I did not max-perform the jet in the recovery and bottomed out at 2,300 feet. As I climbed, my wingman broke a long period of silence on the tactical frequency with the understatement of the day, "That was a little scary."

Lots of questions came up in post-flight discussions, and not just, "Dude, how much seat cushion did you suck up?" or, "Why did I start a nose-high maneuver at such a low altitude and airspeed?"

"Someone's going to have to call the skipper and tell him I just put a jet in the water."

Hornet squadrons place SOP restrictions on their aircraft when maneuvering below the soft deck (hard deck plus 5,000 feet). Our SOP stated when "...maneuvering between the hard and soft decks, the minimum-allowable sustained speed is 150 knots and 25 alpha." I commenced the over-the-top maneuver with this statement in mind, and, had I flown the jet properly, I never would have violated it. Also, in the 30 days before this flight, I had 25 hours during seven flights in seven days. This included practicing similar maneuvers while preparing for a demo qual. I was as proficient as I could have been within the first few months back from cruise. Had I been less proficient, I doubt I would have maneuvered as aggressively.

Why did I keep my eyes and attention focused on my opponent during a difficult maneuver? FA-18 FRS students are taught the principle of mission-crosscheck time (MCT) during their low-altitude tactics-training part of the strike phase. MCT in the FRS involves the time a pilot can spend without verifying flight-path deconfliction from the ground during low-altitude flight. This subject rarely comes up during the remainder of FRS training. Occasionally it will be discussed in terms of formation flying, particularly on goggles. I seldom

have heard MCT discussed since I completed the FRS, and certainly never regarding BFM.

The principles remain the same no matter what phase of flight you are in. There is a finite amount of time you can spend on other flight-related tasks without verifying flight-path deconfliction between your aircraft and the ground or other aircraft. If you exceed that amount of time, you increase the risk to yourself, your aircraft, and others around you.

The lessons learned are many. First, before you fly, know your SOP. Those restrictions exist for our safety, not to take the fun out of flying. Second, don't cut short safety-related briefing items like ORM and training rules. We did not, and I was thankful for it, as I found myself reciting "controls release, feet off rudders, speedbrake check in...," at less than 8,000 feet. Third, CRM was very applicable on this flight. My wingman did a fabulous job during my departure. He verified what I was seeing in the HUD, but had my baro instruments been lagging, he would have provided reliable information, as I needed it. Post-flight discussion also showed he was about to make an "Eject" call as I declared, "I've got it." That call could have saved my life if I had been disoriented.

I should have been on instruments during the vertical maneuver. I needed to look outside and see what my opponent was doing at some point in my maneuver. Then I should have come back to the HUD. I easily could have continued to fight while peeking at him to make sure he was tracking as his flight path predicted.

I took what should have been a safe maneuver and made it unsafe by focusing my attention too long in the wrong place. Whether I decided to continue the nose-high move or to redefine my flight path into the one-circle flow that was developing, doing so on the HUD would have made sure the aircraft continued flying. At very worst, I may have found myself defensive against an opponent but not helpless against a departure.

MCT is essential in all elements of flight. Discuss how it relates to various aspects of your flying. It applies, particularly when there is an increased risk of departure, CFIT, or midair. How many SIRs have you read the last couple years that involved any of the above? I almost became one more. 

Lt. Mungas flies with VFA-105.

An Iranian Patrol

By Lt. Cliff Rauschenberg

Most fleet aviators who have spent a summer in the Persian Gulf are familiar with the heat and haze typical of the region. The reduced visibility often forces the ship to use Case III recovery procedures. To those not familiar with a Case III recovery, it is an instrument approach, followed by a straight-in. However, on rare occasions in the Persian Gulf, the environmental conditions support Case I procedures. A Case I has pilots stack themselves overhead and wait their turn to come in for the break. On this day, while flying in support for OSW, my wingman and I got the good news that Mom was calling for a Case I recovery.

While in the overhead stack at 3,000 feet awaiting recovery, the new mini-boss made a frantic call over tower frequency announcing an Iranian patrol boat was rapidly approaching the carrier from the port side—eight miles out. Of course, my lead and I jumped at the call and told the mini-boss we would check it out. Following CV NATOPS procedures, we went outside of 10 miles and descended to 1,000 feet. We turned on our FLIRs and slaved them to the surface contact.

Unlike most days when flying the Hornet on cruise, my lead and I had gas to spare, so we opted to accelerate to 480 knots. This would

make sure we had enough smack on the jet to maneuver in case the patrol vessel decided to take a potshot at us. Our heads were buried in the cockpit trying to sweeten the FLIR image, so we would have good video footage to show. We lost our situational awareness of the other aircraft in the overhead stack. Besides, they were supposed to be stacked above us, as outlined in the airwing's SOP.

Meanwhile, a section of F-14s made a call to tower requesting a flyby. Since the launch was delayed, the boss granted the Tomcats permission. My wingman and I heard the conversation but did not really pay much attention. We were too focused on getting FLIR footage of the Iranian-patrol boat.

All of a sudden, out of the corner of my eye, I saw two Tomcats come screaming down through the section. I screamed, "Watch it, two Toms! Get your nose down!"

Boat? Where?



My lead stuffed the nose down without question, resulting in a 50-foot pass. Both of us were shaken up. The Tomcat pilots were unfazed—they never saw us.

We learned several lessons and realized the fault was with them and us. My lead and I should have practiced a better visual lookout. As a single-seat pilot, it is easy to get distracted and forget the basics.

Both of us disregarded proper mission-crosscheck times because we were too focused on becoming the heroes of the day. Yes, the Hornet has an effective air-to-air radar, but that shouldn't trump a good visual lookout, especially in a Case I, VFR-holding pattern.

The Tomcats violated procedures by descending through the overhead stack inside of 10 miles. At times, the rules set forth by NATOPS are cumbersome, but as professionals, we trust they are there for a reason. If all aircrew involved had kept their heads on a swivel and abided by NATOPS that day over the Persian Gulf, this near-collision could have been avoided.

Lt. Rauschenberg flies with VFA-15.

All of a sudden, out of the corner of my eye, I saw two Tomcats come screaming down through the section.



By *Lcdr. W. Scott Butler*

“OK, here comes the burner signal. Pluggin’ ‘em in. There’s 1...2...3...4...5. OK, engines look good. Are you ready?” asked my newly-minted pilot, recently arrived from his initial carrier qualification at VF-101.

“Sure am. Let’s go flyin’,” I responded, pumped to launch from the deck of *USS Enterprise*. This was the first time he had launched from the boat as part of a fleet F-14 squadron, and my first night-carrier launch in four years. Still, I had nearly 200 night launches from the carrier under my belt, and he already had demonstrated he was a strong ball flyer. We had talked about every contingency—or so we thought.

“Here come the lights. He’s pushing the button. Here’s the stroke.”

It was a flawless launch into less-than-flawless weather. We were among the last aircrew to finish the CQ phase of an eight-day, integrated-ship exercise known as an independent-steaming exercise. Although primarily designed as an opportunity for ship’s company to become proficient in their duties, it also provided a chance for Carrier Air Wing Eight to perform routine cyclic operations for the first time since leaving *USS Theodore Roosevelt*.

“103, airborne,” I called, as we flew into the darkness.

“Hey, I think I’ve really got something here,” remarked the pilot. He calmly proceeded to tell me that after raising the gear handle and hitting the master-reset button to clear a nuisance flap light, he still had a launch-bar light. Several things can cause this light in the F-14, none of which aid landing on the carrier. Although this was by no means a time- or flight-critical emergency, a launch bar that remains down after a

Ready for the



launch could lead to a tricky recovery later on. And it was one thing we hadn't really talked about before our first flight together.

Looking over his left shoulder, I could see the indicator showing our landing gear safely up and locked. That was good news, provided we could get the gear to go down safely. Now we had to figure out how to get them down.

We talked to a squadron representative and described our situation while continuing to climb. Leveling at 10,000 feet to remain in clear airspace, we circled overhead the ship and talked through our options.

After a brief discussion with our rep, the pilot lowered the gear handle, which safely brought down our landing gear. One of the primary concerns with a launch-bar light is that the nose gear may be cocked, preventing it from locking into place for a safe landing. Once we had indications all three were down and locked in place, we felt better, although the continued

presence of the light indicated the launch bar still might be down. This would keep us from landing normally. The darkness and the marginal weather prevented any chance of another aircraft checking our situation, so we left, wondering where we might go. Although we had plenty of gas, the weather was miserable at every divert, and we were not eager to press into unknown conditions in an aircraft with potentially bad gear.

The squadron just had completed an orange-air detachment in the humid conditions of Pensacola, Fla. The first days of the detachment aboard *Enterprise* had been filled with torrential downpours, soaking the electronics of our gracefully aging aircraft. Our beloved Fast Eagle 103 is the oldest production Tomcat still flying, and, on this night, she seemed to be showing her age. We talked about the possibility the light merely could be an electronic glitch from moisture or age. Our PCL was clear; if we had the

Photos by Matthew Thomas
Photo composite

Launch (Bar Light)...

light, we had to assume it was valid until proven otherwise.

Our commanding officer coordinated a flyover of the ship for us so the LSOs could shine a beacon on our nosegear and determine its condition. We completed the flyover and the LSOs reported the launch bar appeared to be up. They were willing to try to bring us onboard.

Again, our PCL was clear. With a launch-bar light during carrier operations, even without secondary indications confirming unsafe gear, aircrew are directed to divert, if possible. In our case, we were less than 100 miles from the Virginia coast, and this seemed to be the clear choice. Despite the LSO's best intentions, the skipper quoted our NATOPS and sent us on a divert to NAS Norfolk, where the weather marginally was better than our home base at NAS Oceana.

We had been hoarding our fuel and still were carrying plenty of gas. We also felt the proper decisions were being made by all, but we were concerned by the deteriorating weather conditions at each divert. In fact, the diverts listed during our preflight briefing proved not to be legal, but we felt with good control and calm, professional aviating, we would be able to hack it.

The return was uneventful, with the controlling agencies providing courteous treatment to our emergency Tomcat. En route to Norfolk, we discussed every contingency: the missed approach and waveoff procedures, the desirability of a minimum-rate-of-descent landing, the need to take an arrested landing, and, in the event we missed the gear, the need to hold the nose gear up for as long as possible after touchdown to minimize the chance for a gear problem. Finally, we discussed whether to stay with the jet if we missed the arresting gear and found ourselves with damaged landing gear on a wet runway, or if the plane left the runway.

When we finally made our approach, the weather had dropped to barely acceptable minimums. Fortunately, we saved enough gas for two approaches into NAS Norfolk before requiring a true bingo divert to MCAS Cherry Point. The weather at Cherry Point was described as miserable but was rumored to be getting better.

We broke out of the weather and acquired the runway environment just before reaching our missed-approach altitude. The pilot gently set down the Tomcat, just missing the short-field gear, and we began our roll to the end of a very wet runway.

Applying increasing pressure on the brakes with 3,000 feet of runway to go, we felt a strong thump below the jet. We were unsure if we had blown the carrierized tires or if the launch bar had popped the nose gear. We slowed as the emergency trucks rolled out to greet us, and we came to a stop at the very end of runway 10. It seems we had caught the long-field gear—a good thing, or we would have rolled into a lake.

Although this flight ended without any serious problems, several issues were discussed that night and the following day. It was obvious we had not been prepared for several contingencies, although we were confident everything was covered before the first flight.

We agreed with the wisdom of sending us to a divert field, despite the willingness of the LSOs to catch us and our belief the real problem was in the electrical system and not the launch bar. Although this proved to be the case, taking a trap aboard the carrier would have been a NATOPS violation and would have been hard to explain if something had gone wrong.

We needed to keep options open throughout the emergency. Our situation was not time-critical, and the open discussions with our squadron rep and CO allowed us to think through their advice and to analyze our decisions. We agreed that the divert was the right thing to do, but were, at first, hesitant to proceed to NAS Norfolk. Although the weather was above legal requirements for landing, it was below legal-divert minimums and could have presented some serious problems had our fuel state been different.

As the mission commander, I had overall responsibility for the safe recovery of our jet—a role of which I became ever more acutely aware as one decision led to the next. All the good advice in the world would have been irrelevant if I had allowed us to make poor decisions. 

LCdr. Butler flew with VF-41.

Bingo?

By Lt. Mike Mrstik

I've always been afraid of the dark. In my limited time as a S-3 driver, I have come to believe the Navy would have a lot fewer double-anchor types if they knew or could feel the terror a new pilot feels during his last four seconds of ball-flying on a night approach.

I just had finished carrier qualifications with the FRS and had joined my squadron underway on the first week of work-ups. I had not shined during FRS CQ, but I told myself this would be a great opportunity to go out and show I could hang with the big boys. During my first week, I was confined to the day page, and life was good. It wasn't until the second week that my name first appeared on the night page.

The schedule writers had paired me with a senior NFO for a double-cycle SSC mission. The SSC was uneventful, and we logged almost three hours before we assumed duty as recovery tanker. Hawking the recovery was not something we practiced at the FRS, and I quickly found myself hanging on the stabs

trying to keep up. Maneuvering in and out of clouds to set hawks, I did the best I could to stay focused and avoid vertigo. In an airwing comprised mostly of nuggets, several jets bolted, and, before long, I had my first few "saves." The glory, however, was short-lived. Soon it was my turn to come down the chute.

"Bolter, bolter, bolter!" After the third bolter and approaching the mission's fourth hour, I decided it might be a good idea to let my rightseater know I had started to experience vertigo. My senses and instruments were not agreeing in the least.

On my fourth pass, like the previous three, I floated the ball off the top of the lens. After I had lifted, CATCC told me to check in with marshal, and they would recover me after the next launch. I looked forward to the break, so I could recover from my case of vertigo. I also assured myself the next recovery would go more smoothly. Fortunately, the S-3 uses gas like a Geo Metro, and I was sure we would have plenty to get aboard without tanking.

"What S-3 pilot ever has had to sweat gas?" I

thought. Besides, I was sure we would get aboard on the next pass.

The marshal stack was IFR, and my vertigo continued. By the time we had commenced our next approach, I realized I still couldn't tell up from down and asked my COTAC to call vertigo on the ball. He responded by telling me that he also had vertigo. I concentrated hard on flying instruments and transitioning to the ball for my next three passes. My COTAC gave the best backup he could, but after four hours in the soup, I think his brain was as uncaged as mine.

Even an S-3 can't fly forever, and before I knew it, we had reached bingo. Despite our bingo state, the boat signaled us to tank. We reiterated our fuel state and asked the boat to confirm "Tank," which they did.

Although the hawk was well set, my join-up was not expeditious. When we reached 400 pounds below bingo, my COTAC finally declared bingo and told the boat we would be diverting.

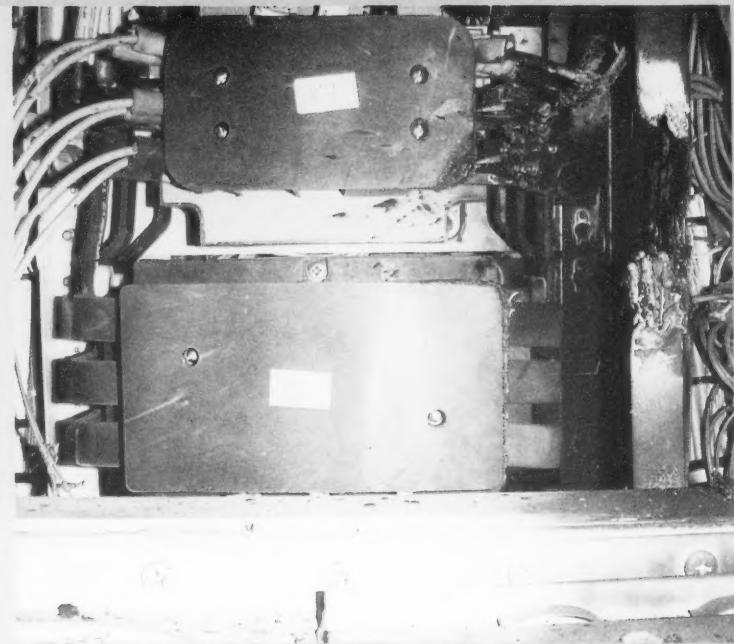
After a quick fuel calculation, we realized it would be close. We would be landing with less than the 1,000-pound reserve included in the bingo profile. As a precaution, we donned our oxygen masks and prepared for a controlled ejection. As we approached North Island, both low-fuel lights illuminated—we had less than 800 pounds of fuel remaining. We held the gear and flaps until short final and took a short-field arrestment.

Looking back at the incident, I know I had hesitated to declare bingo and divert. I should have swallowed my pride and immediately diverted.

Bingo is an emergency and diverting when you reach that fuel state is a requirement, not an option. The responsibility to be assertive in making this decision rests with the aircrew on board, and nothing should change their mind. Delaying this decision, combined with unsuccessful tanking attempts, could have resulted in ejection, the loss of our aircraft, and, possibly, its crew.



Lt. Mrstik flies with VS-29.



The damaged electrical-load center.

Another Day at the Office

By Lt. Tony Rhodes



It started out as just another day at the office, with my crew preparing for our single-cycle, SSC-recovery-tanker flight. The pilot was an experienced second cruiser. He delivered a thorough brief that covered all the usual contingencies. A squadron TACCO and a SENSO from the ship's company joined us to troubleshoot some computer systems that lately had caused problems.

During our brief JTFEX period and the first few days of deployment, our deck had been running a little slower than normal. The word was out for S-3 guys to plan on launching 15 minutes before the scheduled event launch, instead of the usual 10 minutes. We also were supposed to start walking to our jet even earlier than usual, allowing time to start the APU 45 minutes before the launch time. This would help the deck crew speed up things.

After briefing and eating, our pilot read the book and got on deck early to preflight aircraft 707. I got to the jet on time, helped with the preflight,

and got in before the APU start-up signal was given. Predictably, our new and much lauded CAINS II navigation system, which all of our jets had been outfitted with during the past six months, was not aligning properly. After trying the secondary- and tertiary-alignment procedures, as well as all the usual troubleshooting methods, we still could not obtain a platform. It was time to shut down the No.2 engine and to get a troubleshooter.

By this time, the boss was getting anxious about launching the oncoming recovery tanker, and he was looking for some answers. I told him our dilemma, but, after a few more minutes of troubleshooting, it was time to switch jets or to do further minor maintenance to get an alignment started. Either way, it would take at least 15 minutes to be ready.

With 13 minutes to our scheduled launch, we found ourselves sprinting to 706, our second jet. We just had to fire it up and still make our scheduled launch time, getting our tanker airborne and saving the event. Since we were in the first week of cruise and flying blue-water operations, the heavies demanded at least two tankers overhead at all times before they would launch any other jets.

The jet was parked near cat 2, and our stellar maintenance team had started 706's APU. I arrived first, skipped the preflight, and threw myself into the right seat. The SENSO arrived next and started moving the frick (lead weights that occupy the fourth seat, which is usually unoccupied) into the tunnel. I immediately started the alignment on the CAINS II, since that again surely would be our limiting factor.

With the alignment going, I set up my side of the cockpit as the pilot and TACCO showed up. Following a quick preflight of his seat, the pilot began his contortionist act to climb into the seat.

Just then, the lights and power began to dim and flicker, similar to the way they might with a failing APU generator or external-power source. We looked at each other, and he said exactly what we were thinking, "What the *#*\$% is wrong now?" As he reached up to check the electrical-control panel, I looked into the tunnel to check the status of the backseaters and to see if a troubleshooter was around. As I glanced back, all I could see was the SENSO standing in the tunnel, haloed by an angelic plume of shooting sparks. I turned to my pilot and nonchalantly proclaimed, "There's a fire in the back."

The pilot looked back to see our AW1 surrounded by radiant sparks and blue flames, and instantly yelled, "Fire! Get out! Get out of the jet!"

The AW1 quickly scurried down through the hatch and met our TACCO outside. The pilot followed him as I struggled to get unstrapped, still in disbelief as to

the seriousness of our situation. The cockpit now rapidly was filling with dense smoke and acrid fumes. My pilot stayed behind and was yelling at me to get out. As I finally released myself from what felt like "the chains that bound me," I noticed torch-like flames and heard a popcorn-like sound of molten-metal fragments shooting out of the circuit-breaker panel, which is near the aft ejection-seat rockets.

As I dragged my nav bag from the side of my seat, I reached up and instinctively shut down the APU before slipping out the hatch. I ran a few yards away from the jet. As aviators often do, once we safely were outside and were sure everyone had made it out unscathed, we laughed at our situation and ourselves. I still am not sure if my eyes could have been as wide open and bug-eyed as those of my crew members.

After reviewing my actions, I decided saving my nav bag shouldn't have been a priority. Surprisingly, the item foremost on my mind at that moment was the question of how long it would take to get another jet fired-up.

We eventually manned 700 and got it started, only to have our event cancelled because of time. However, we were able to stay in our turning jet another hour and to launch with the following event.

Later that night, we saw pictures of the electrical-load center in 706. If I hadn't shut down the APU, we probably would have lost the jet. It turned out that wires aft of the circuit-breaker panel had loosened, began to spark, and then arced across a metal bracket, causing this nasty electrical fire. The whole process essentially transformed the wire bundle into a blowtorch, which melted through a three-inch steel bracket. Molten-steel fragments (the popcorn-like sound I had heard) shot throughout the tunnel. It was fortunate our SENSO wasn't in the main stream of sparks, and his flight gear protected him.

Had this freak accident occurred in flight, we surely would have lost the jet. Even if we did fly the jet on standby gyro, or if the emergency battery had continued to power the pilot's CAINS-gyro display after losing electricity, we would not have had time to make any approach to the ship. The smoke and acrid fumes would have been unbearable in a matter of seconds.

Sometimes, saving the event launch isn't the most important thing to consider when troubleshooting. It also was a reminder that no day on the carrier is just another day at the office.

Lt. Steve Koffler, Lt. Chris Johnson and AW1 John Biggs helped Lt. Rhodes with this article. They fly with VS-33.

Suckin' Gas

By Lt. Greg Brown

We were flying FA-18s off Southern California. It was a pinky launch for a night recovery doing captive SLAM ER work. Except for a later-than-expected push time, the flight was uneventful. My lead and I were within a couple hundred pounds of ladder. Since he had launched first and had flown a low profile for part of the hop, while I stayed at altitude, I should have had at least 1,000 pounds more than him. Though I hadn't properly managed my fuel, I still was above ladder.

After a manual push, I flew the CV 1, rolled out on final bearing, and prepared to get aboard. When I descended out of 1,200 feet and cleared the marine layer, I could see one aircraft between the ship and my aircraft. Before he could call the

ball, he was waved off for a foul deck. Soon, so was I.

"One look at the ball, two to go," I thought. Tank fuel was 3,000 pounds. I turned downwind at half flaps and waited for a turn to final. No call came at four miles downwind, no call at six miles, and still no call at eight miles. This wasn't a huge surprise since others had lower fuel states than mine, including my lead. At 10 miles out, I started to get concerned. Finally, after 12 miles upwind, I got a turn to final bearing.

"Say fuel state," approach requested.

In my best "listen carefully" voice, I said, "State 3.5." I would be trick-or-treat on the ball. With North Island 140 miles away, bolterizing would put me below bingo-divert numbers.

Adding to the heartburn were the calls coming over the radio from paddles. "Power, power...easy with it...bolter, bolter, bolter," he called. It sounded like the deck was moving.

I tried to save as much fuel as possible. On final, I held gear and half flaps with my hand on the landing-gear handle. I dirtied up at six miles and saw the tanker roll in overhead. The glide path was centered as I started down. I called the ball with 3,100 pounds.

It wasn't the best pass. I got too low in close, added a bunch of power to catch it, then pulled a fistful off to make a play for the 4-wire with paddles talking to me the whole way. I had

no such luck, another bolter. It later was assessed as a no-count bolter. Thanks, paddles. I looked up and saw the tanker ahead at 3,000 feet. I cleaned up, climbed, and locked him up to get closure. I heard flight lead was getting gas; he also had boltered.

With about 1.5 miles to go, I heard an S-3 call in hyds down, tanker sour. "I hope that's not mine," I thought. Just then over the radio came, "Four zero four, your signal is divert. North Island bears 049."

I went to mil and started an aggressive right turn. I then selected the North Island waypoint and accelerated for a climb. My fuel was 2,800 pounds. I was concerned with my drag index and how far I was below divert fuel. The divert-matrix card on my kneeboard read 3,000 pounds. Fuel-divert calculations leave 1,500 pounds in

the tanks, which is plenty to get the gear and flaps down for approach if there aren't any contingencies. Two data-link pods, two tanks, LDT, FLIR, CATM 9, and TACTS pod put me close to the 100-drag index, if not over it. The potential for cloud layers and for flying an actual instrument approach, while being 200 pounds below divert fuel, were going to take a worrisome bite out of that reserve.

I wasn't flying the best climb profile, either. Initially, I got too fast. I declared emergency fuel with Beaver Control and told them I was climbing to 40,000 feet. The jet took a long time making that last 5,000 feet with the recommended .78 Mach. I still was nervous until I reached altitude and set the cruise fuel flow, checked the winds, and saw they were helping. I checked the range on FPAS and saw there would be 1,000 pounds plus after reaching North Island—assuming I stayed at that altitude. The fuel picture would be even better after an idle descent.

As I neared San Diego, I started seeing lightning along the coast. The weather brief had called for some layers but not CBs. I later realized the storms were farther inland, along the mountain ridges.

I completed the ship-to-shore checklist, designated the North Island waypoint to get a five-to-six-degree, nose-down reference, then started down at 60 miles. I descended through several layers and breathed a sigh of relief after breaking out at 10,000 feet and getting the field in sight at 3,000 feet. Predictably, with the tail winds and a puckered-nozzle descent, I ended up being high. SOCAL gave me a small cut away to set me up for a normal approach. This gave me a couple miles on glidepath, on speed, and time to complete the landing checks. Fuel was 1,300 pounds. The landing was uneventful.

I should have managed my fuel properly and flown the proper airspeed for max endurance and range. This would have given me another look at the boat before being directed to tank. I probably would have gotten aboard.

The time to check drag index and plan your bingo is during preflight planning, not during the climb. You should plan for all contingencies. Even though we were blue-water ops, there were suitable diverts. Going to the beach always was a possibility, but I wasn't prepared. 

Lt. Brown flies with VFA-147.

By Lt. David Kurtz

Anyone who has been to sea with a squadron knows the hectic schedule of planning, briefing, and dealing with many other details. Never is this truer than during combat operations, when the pressure to get airborne and protect the fellas on the ground often can get the better of our judgment.

We became the night-ops carrier in support of Operation Enduring Freedom. To make this possible, the entire ship shifted its schedule 12 hours. The first couple of days were filled with training as the aircrew and the ship's personnel got used to the new schedule. The adjustment was hard, and the new daytime-sleep hours took a while to become habit.

Shakespeare wrote in Hamlet, "Use almost can change the stamp of nature," but your body naturally knows when it should be asleep. I should have listened more to my bod and less to the Bard.

On the first night of combat operations, my crew was scheduled for the second go—night launch, day recovery, and 6+00 flight. Our jet went down, and the ship shot the spare. The next night, ops had us scheduled for the first go—night launch, pinky-sunrise recovery, and 6+00 flight. In between, I had the overnight, four-hour, current-operations watch. Sleep was not yet coming easily, so the pre-ACOPSWO nap I'd scheduled was not very effective (read non-existent). I stood the watch and was relieved an hour before the brief.

zz-zzz
I'll Sleep When I'm Dead
zz-zzz

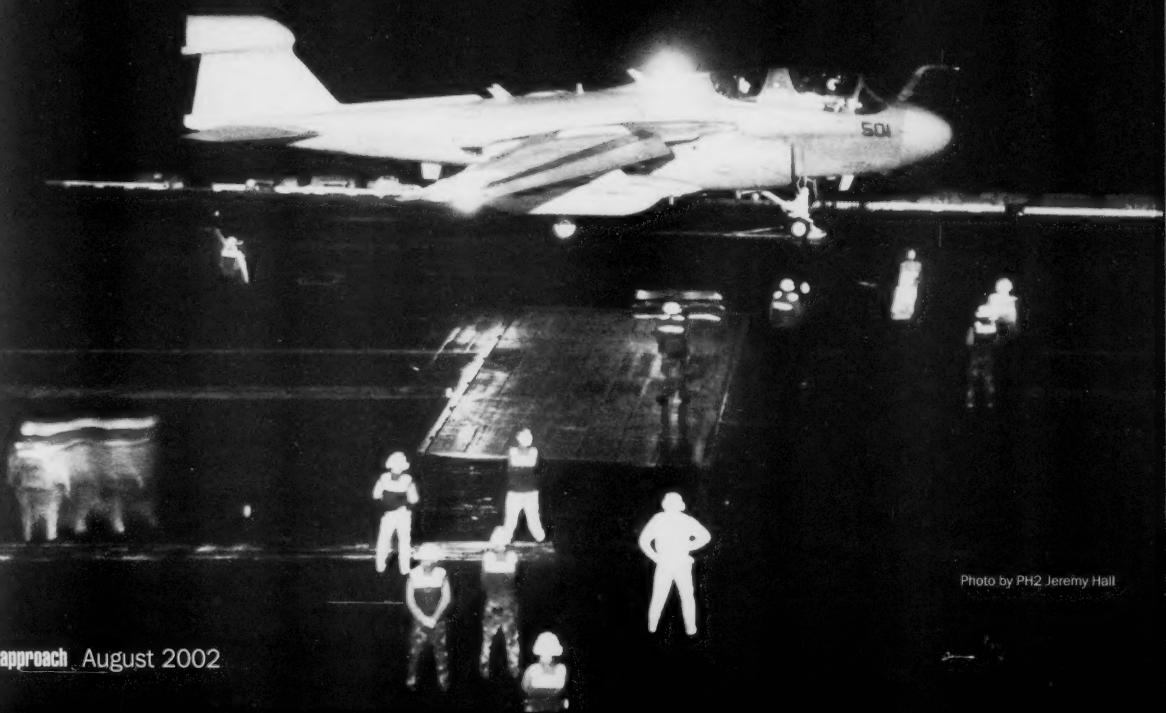


Photo by Ph2 Jeremy Hall

I went to the ready room, double-checked the kneeboard card against the ATO, briefed the section, and, now four hours off of watch and a solid 30 hours from my last good sleep, I manned-up a jet.

The adrenaline of the first flight over the beach and the newness of the situation sustained me for the brief and most of the flight. I was ahead of the jet, making timely decisions, and because of a stellar pre-AOR tactics board, I was experiencing no surprises. We were on our toes as a crew. I handled all of the comms and navigation up front as ECMO 1 and felt on top of my game.

The adrenaline started to subside as we crossed the beach—feet wet. We had made the sortie, and the standard Case III was the only thing between my rack and me. Then we lost the TACAN. The pilot and I hit the wall while holding overhead, waiting for vectors down. A lack of the usual chitchat from the backseat told us we weren't the only ones. We uneventfully recovered, and 38 hours from my last trip over Sleepghanistan, I finally was back at my JO workstation.

Though the flight was uneventful, its message was simple and enlightening. The noise generated on a ship from the no-loads, chains, towbars, and the IMC, conspires against us. We know if we can't finish the plan because of crew rest, it's not going to get finished.

We must understand crew-rest guidelines are there for a reason. We need to be smarter and to use our judgment to govern ourselves and make the safe, tough decisions. William Shakespeare was a smart guy, but Mother Nature has more time in type, and we need to take time to listen to her lesson.

Lt. Kurtz flies with VAQ-138.

From the Command Surgeon, Naval Safety Center

Operational commitments may require sustained operations in which sleep and circadian rhythms are disrupted, leading to potentially hazardous fatigue. At the Naval Safety Center, we have seen an increase in reports of potentially hazardous fatigue.

Because fatigue in sustained flight operations can lead to poor flight performance and increased aircraft-mishap potential, squadron COs and flight surgeons must find ways to maintain optimal performance. Combat naps, proper nutrition, and caffeine are approved and accepted ways to prevent and manage fatigue. In sustained operations, however, these methods may be insufficient. Flight surgeons may have to use stimulants and sedative medications, such as Dexedrine, Ambien, and Restoril, or other measures to manage fatigue and maintain pilot performance. Stimulants and sedatives, though, should be used only in combat or during exceptional circumstances of operational necessity. In all cases, they should be used only with authorization of the squadron commanding officer.

Historically, using medications to maintain performance in aviators is not a new idea. The British and Germans used amphetamines during WWII with their pilots. Later, the British used sedatives to regulate sleep for pilots during the Falklands conflict. Our Air Force and Navy pilots used amphetamines in Vietnam, and the Air Force used amphetamines and sedatives during Desert Storm. In all these circumstances, the drug use was reported to be safe and effective.

The fleet's request to use stimulants and sedative medications during sustained flight operations led to development of NavMed P-6410 (01 Jan 2000), *Performance Maintenance During Continuous Flight Operations, A Guide for Flight Surgeons*. This guide is approved by NOMI and BuMed as the acceptable standard-of-care guide for flight surgeons. It provides background on the subject, strategies for fatigue reduction, and guidance in the use of sleep-inducing and anti-fatigue medications ("no-go pills" and "go pills") in aircrew. Commanding officers, after consulting with their flight surgeons, are authorized by OpNavInst 3710.7 S (15 November 2001) to use any strategies described in the guide when mission requirements and operational risk management indicate use would be appropriate.

Capt. James Fraser, MC

The Missile S That Never W



By Ltjg. Steve Audelo

What a great deal. Just six months out of the FRS, I was selected for the crew that would fire the first Penguin missile from an SH-60B in six years. This was a tremendous opportunity, and I felt lucky. The ex-USS *Guam* would be sunk during COMPTUEX, and our detachment was to be involved. LAMPS aircraft were going to launch a series of Hellfire missiles and one Penguin.

The HAC, AW and I had become involved in all aspects of the Penguin missile and our shot. The event was briefed, and every contingency was mapped out. The ship, the DESRON, our squadron, and, especially, our fellow HSL babbas in the battlegroup and back home were going to watch us through a microscope. We sure didn't want to screw up.

The night before the shoot, I briefed the event to the DESRON and the ship's wardroom. I covered every detail of the shot: Where we were going to be when we fired, what we would do if we had computer problems, and what we would do if the missile failed to leave the rail. This last subject seemed so remote; jokes even were made about it.

After the brief, I walked to the hangar and checked in with the guys to review the scenario for the next day. I then went to bed and tried to sleep but couldn't.

We had an early start the next day. The aircraft was spotted on deck a few hours before the launch so the load team could do their work. Release and control checks were completed, and the missile was loaded on the aircraft. We soon were ready to

launch. It was a gorgeous morning, and we looked forward to the flight.

After launch, we headed toward our loiter point to wait our turn. As time passed, we repeatedly went through the scenario. We had an assigned firing bearing, and we went over the different trajectory options to get the best acquisition and kill. Finally, our time came.

With the missile warmed up and aligned for target, we headed to the firing point. As we got closer, I went over the checklist to make sure no steps were skipped and everything looked right. The cockpit indications were right on, and everything was ready to go. I called out the countdown over the radios and, on the third "now," pressed the launch button.

This is where everything seemed to slow down. I waited for a few seconds, expecting a little delay. The HAC, who was at the controls, waited for the kick associated with the missile release. The AW in the back looked out his window and waited for the drop. The lights in the armament-control-indicator panel went out, and nothing happened. We were a little perplexed; the missile still was with us.

The excitement didn't stop there. We realized the missile wasn't going anywhere, but the canards and the seeker head began to move. We knew the seeker was active, but the missile wasn't talking to the aircraft anymore, and it was trying to fly.

Our first thought was to jettison the missile, but we saw no indication the missile rack was locked or unlocked. We had no idea how the missile still was holding on to the aircraft, or if it would stay on when we tried to land. The jettison point was 75

boot as

Photo by Ted Carlson

miles away. We continued with the NATOPS procedure for a hang-fire, which allows 30 minutes for the battery to drain if extended flight is possible. We did the mental math to figure just how long we could remain airborne. Fortunately, 30 minutes also gave us time to think about all the available options. While gas would be tight, we had enough for several alternatives.

We looked at two options: to proceed to the carrier and let the EOD team unload the missile, or return to our ship and unload. We considered these options, but, at the time, we weren't sure how stable the missile was on the launch assembly. A third option was to jettison the missile. We told the controlling E-2 we planned to jettison and headed in that direction.

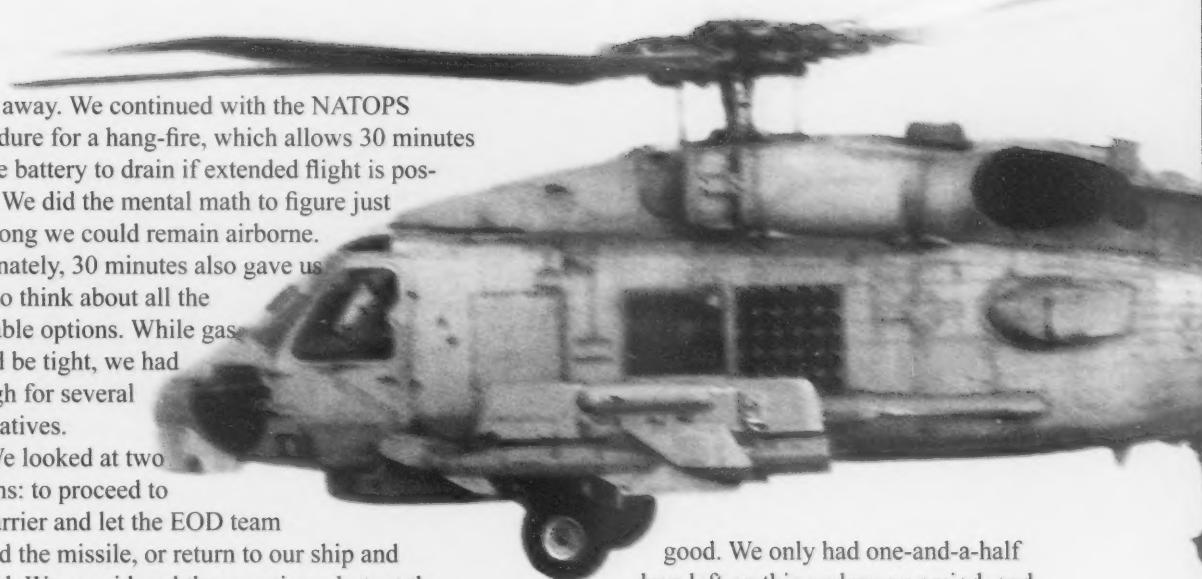
We had regained comms with our ship and relayed what had happened. We also discussed what we wanted to do with our babbas on the boat. By that time, they had contacted tech reps on the beach and gave us good news. They had determined the missile would not launch inadvertently after the battery was drained. With this knowledge, we turned our nose toward Mom and headed home. We shot an alpha-pattern approach to an uneventful clear-deck landing.

I'll have to admit, I just was happy to be back on the boat. In fact, that flight deck never looked so

good. We only had one-and-a-half days left on this underway period, and we would be back in Mayport.

It was a good COMPTUEX. I learned a lot and had great experiences I won't forget. We had good crew coordination in the aircraft, and I think this is a good example of how CRM can be used. Being type-A personalities, we want to fix the problem right now. The 30 minutes we had to evaluate the situation afforded us the chance to step back and review our options and resources. CRM is discussed as an aircrew resource, but, in this case, it worked outside as well. We used the resources available in the helicopter, but, in the end, it was good crew coordination inside and outside the cockpit that allowed us to make an informed decision. 

Ltjg. Audelo flies with HSL-48, Det 3.



My First SAR

By LCDR. Dave Bouve

An FRS instructor told me there are two types of helicopter pilots: those who have been involved in a search and rescue, and those who will be.

We were two months into what was shaping up to be an extremely successful cruise. Operation Enduring Freedom was in full swing. My detachment was assigned to USS *Leyte Gulf* (CG 55), and we were supporting Maritime Interdiction Operations (MIO) in the northern Arabian Gulf with USS *Peterson* (DD 969) and other coalition and U.S. ships.

Merchant vessels awaiting inspection by boarding teams were detained together at an anchorage. One of these vessels was the MV *Smara*, a 250-foot cargo ship that had been converted to smuggle oil. The vessel had a crew of 14 and was in poor material condition. The *Smara* had been intercepted and was at the holding anchorage with an eight-man security team from *Peterson* onboard.

It was 0415, and my crew was in Proud Warrior 437, finishing a surveillance mission off the coast of Kuwait. A *shamal* had been developing throughout the night. The winds had increased to 30 to 40 knots, and the seas were 8 to 10 feet. We had launched at 0200 and were ready to fly 60 miles back to the ship when we received a call from our ship that *Smara* was capsizing in the heavy seas. The crew and security team were preparing to abandon ship.

We put the TACAN needle on the nose and pulled max power. We were told a few minutes later the ship had gone down, and all 22 people were in the water.

We landed on our ship, refueled and embarked a rescue swimmer. While we briefed on deck and fueled, we could see Magnum 443 (from *Peterson*) in a hover a few hundred yards off our port beam. They were airborne, had located a survivor, and had deployed their rescue swimmer. We established radio comms with them and learned their rescue strop had separated from the swimmer and hook. Because of the darkness, wind and seas, the rescue swimmer had to attend to the survivor and wait for another means of pickup. Magnum 443 marked the position of their swimmer with smoke and moved off.

We launched, moved in, lowered our strop, and the Magnum swimmer hooked up the survivor for pickup. After we hoisted him into the cabin, we again lowered the hoist and retrieved the swimmer. They were covered head to toe in crude oil from a massive slick that had formed over the site of the sinking. The oil draining off our passengers covered everything in the cabin.

As we departed, we spotted another survivor straight ahead. We reentered a doppler approach and established another night hover over the survivor. Our wet swimmer already was in the door, and, as my pilot maintained position via calls from the hoist operator, the swimmer was lowered into the huge, oil-covered swells. He almost

ORM Corner

Please send your questions, comments or recommendations to Ted Wiggins or to Capt. Denis M. Faherty, Director, Operational Risk Management.

Mr. Ted Wiggins's address is: Code 11, Naval Safety Center, 375 A St., Norfolk, VA 23511-4399.
(757) 444-3520, ext. 7271 (DSN-564).
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E-mail: faherty.denis@hq.navy.mil



was blinded from the wind-driven spray and oil that soon covered his mask and face. Nevertheless, he disconnected, swam to the survivor, checked him for injuries, and signaled for pickup. They were hoisted into the cabin, and the AWs treated the survivors for shock and hypothermia, although the main problem with everyone was the ingested oil.

We had seven people onboard but only five seats, so we had to land to make room in the back and to get medical attention for the survivors. We also had to get the Magnum swimmer offloaded so his helo could pick him up and get back into the game. Unfortunately, our only options were *Peterson* and *Leyte Gulf*, which were conducting small-boat ops to aid the SAR effort.

The ship was DIW and broadside to the winds and seas to form lees—the rolls and winds were way out of limits. We opted to land aboard *Peterson*, since it was closest. I briefly considered an RA recovery on the wire, but it was hazardous to send hookup men on the deck in the dark. It would take time to set up, and we still would have been out of the envelope. We decided to try a free-deck recovery into the RSD.

When dawn began to break, I guarded the controls and let my pilot continue with the approach. He had done a great job flying so far. The deck was rolling up to 10 degrees, and winds were 35 knots from starboard. We waited for a relatively stable deck and landed into the RSD. Once trapped, we offloaded our three passengers and immediately relaunched.

My AWs donned NVGs to help search for more survivors, and I periodically flipped mine

down, as well. My crewmen in the back spotted another survivor, and we moved in for pickup. My wet swimmer again went down the hoist and fought the wind, waves, oil, and debris to get to the survivor. When we hoisted him aboard, it was clear this guy was in bad shape. He was incoherent and threw up crude oil. My crewmen got him on his side, and we bustered back to *Peterson* to drop him off.

The ship had turned 180 degrees, and winds were directly from the port side, making the roll just as bad. While I fought to lean into the port winds and maintain position over the starboard-canted deck, the senior crewman told me the survivor was having chest pains. I told the deck



contact that once I landed, into the RSD or not, I immediately wanted chocks and chains. The LSO rogered up.

I tried to anticipate a deck roll back to something close to level, and I planted the collective. Unfortunately, my probe landed about six inches too far back on top of the RSD. We weren't moving, and my copilot signalled for chocks and chains. With my left arm locked down on the collective, the survivor was taken into the hangar, while I looked for any sign of sliding. The chock-and-chain runners had done a good job, and we weren't going anywhere. The AWs jumped back in, the deck crew broke us down, and we relaunched.

After another 90 minutes of unsuccessful searching, we flew to *Leyte Gulf* for gas and a crewswap.

Through it all, the small boats had been busy plucking survivors from the oily water. The search continued for two days. In the end, 16 of the 22 people who had abandoned ship were recovered. Sadly, the other six, including two Navy security-team members, were lost.

Several lessons were learned. It never occurred to me to brief my crewmen about the consequences of jumping into an oil slick, a possibility whenever a ship sinks. Besides the hazards to the swimmer, the oil that covered everything in the cabin made it difficult for the hoist operator to work.

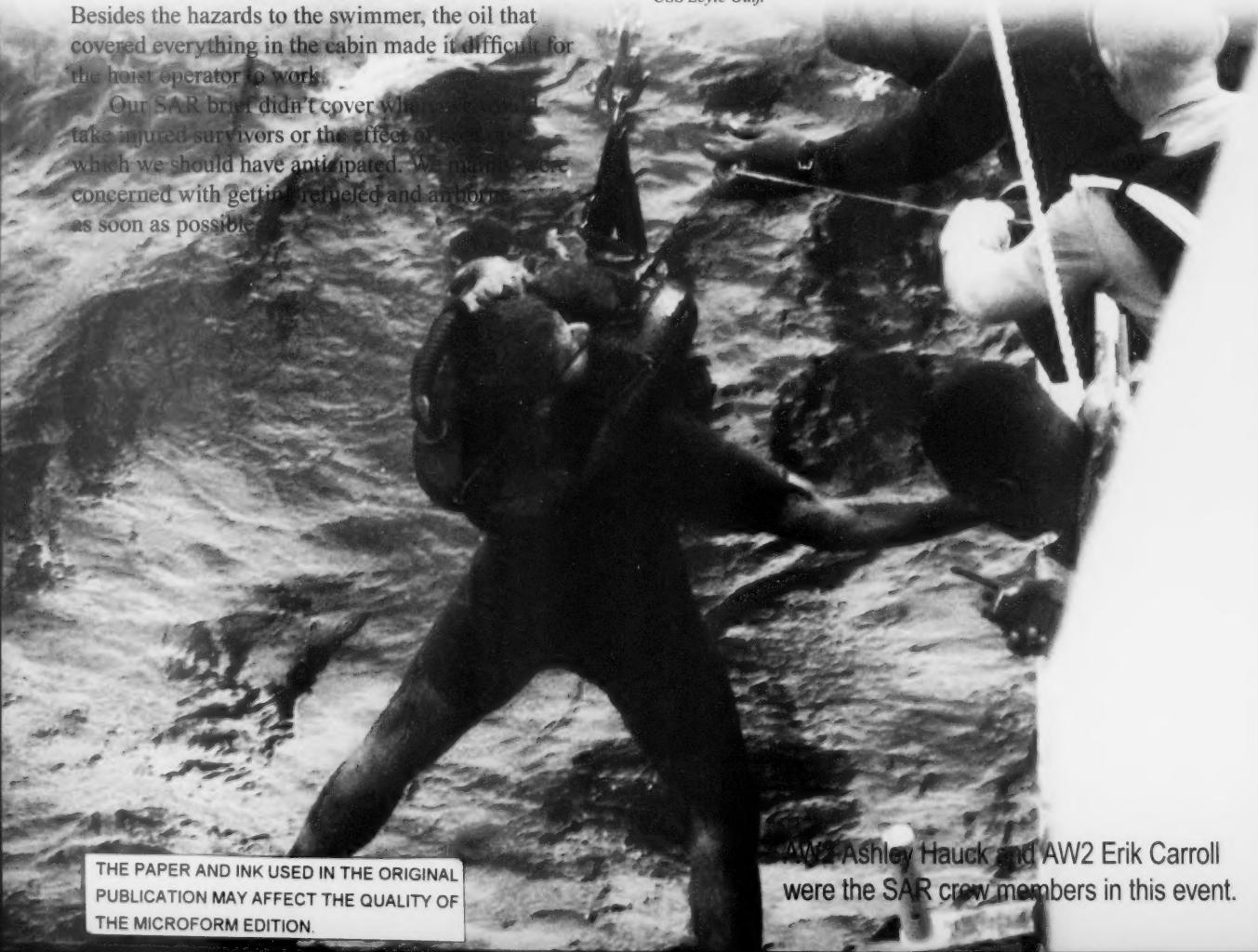
Our SAR brief didn't cover what we would take injured survivors or the effect of soot on the oil which we should have anticipated. We must have been concerned with getting refueled and airborne as soon as possible.

In retrospect, I should have worked at my landing on *Peterson* until I got it into the RSD. I thought in terms of the medical emergency in the back, and it all worked out. I didn't think the roll was bad enough to tip or slide us. However, if the aircraft had started to move while I had on the chocks and chains, all we could have done was

My wet swimmer again went down the hoist and fought the wind, waves, oil, and debris to get to the survivor.

hang on. The RSD is designed to hold the helo in place in rolls much worse than 10 degrees. I made the risk evaluation, but the final step in the ORM process should have been to implement controls to make sure I ended up in the RSD to minimize the risk of sliding on the deck. I made a hundred decisions that morning, and I applied ORM to most of them, some consciously, some without being aware of it. You need to get through all the steps in the ORM process. 

LCdr. Bouve wrote this article while assigned to HSL-42 Det 2, onboard USS *Leyte Gulf*.



THE PAPER AND INK USED IN THE ORIGINAL PUBLICATION MAY AFFECT THE QUALITY OF THE MICROFORM EDITION.

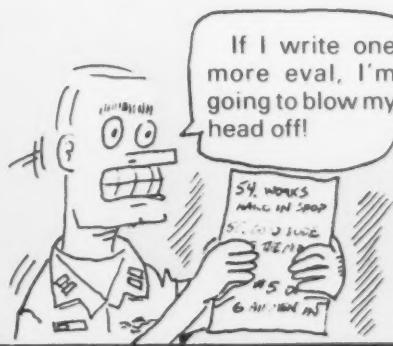
AW2 Ashley Hauck and AW2 Erik Carroll were the SAR crew members in this event.

classic BROWNSHOES IN ACTION COMIX

"The kind real aviators like"

Contributed by Lt. Ward Carroll, VF 32

His gloved hand has squeezed off 20mm with ease and also attempted to squeeze black out of the stick at three-fourths NM at night. He's seen everything from cocked nose gear to some incredible DPs in Bit 7. He knows it all: pulling G's, breathing 100 percent oxygen, (NEPIC), bolters . . .

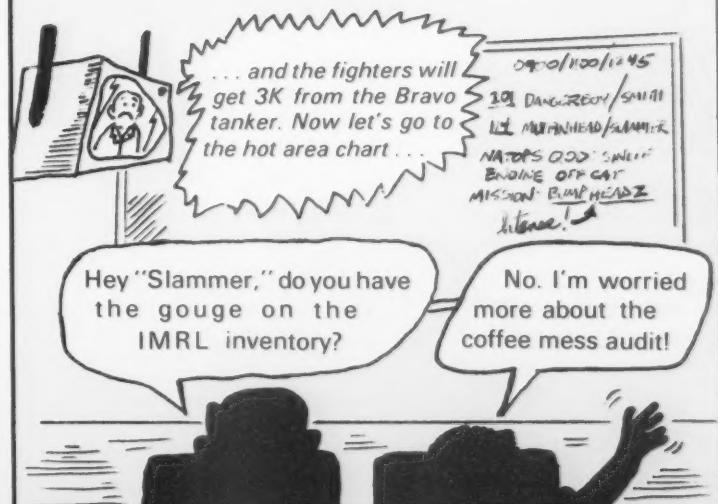


Dangerboy walks a bit late due to a heated discussion with the AMO regarding additional TAD requirements to AIMD. No big deal, he's done this a million times . . .

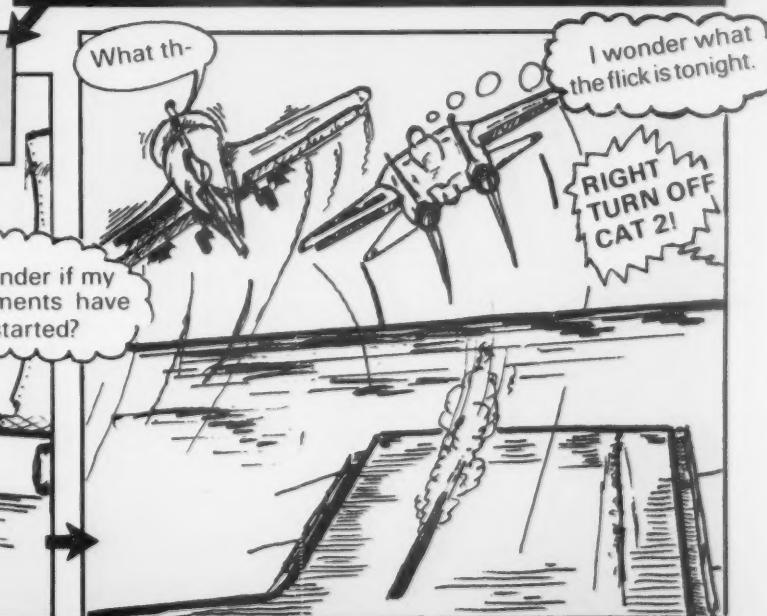


Sure, recent films and books have captured the mood that surrounds naval aviation, but those closely associated with that way of life know that the public received only a small glimpse of the total "action" package. Take Lt. Lance "Dangerboy" Jones, for example.

Brief time in ready three . . .

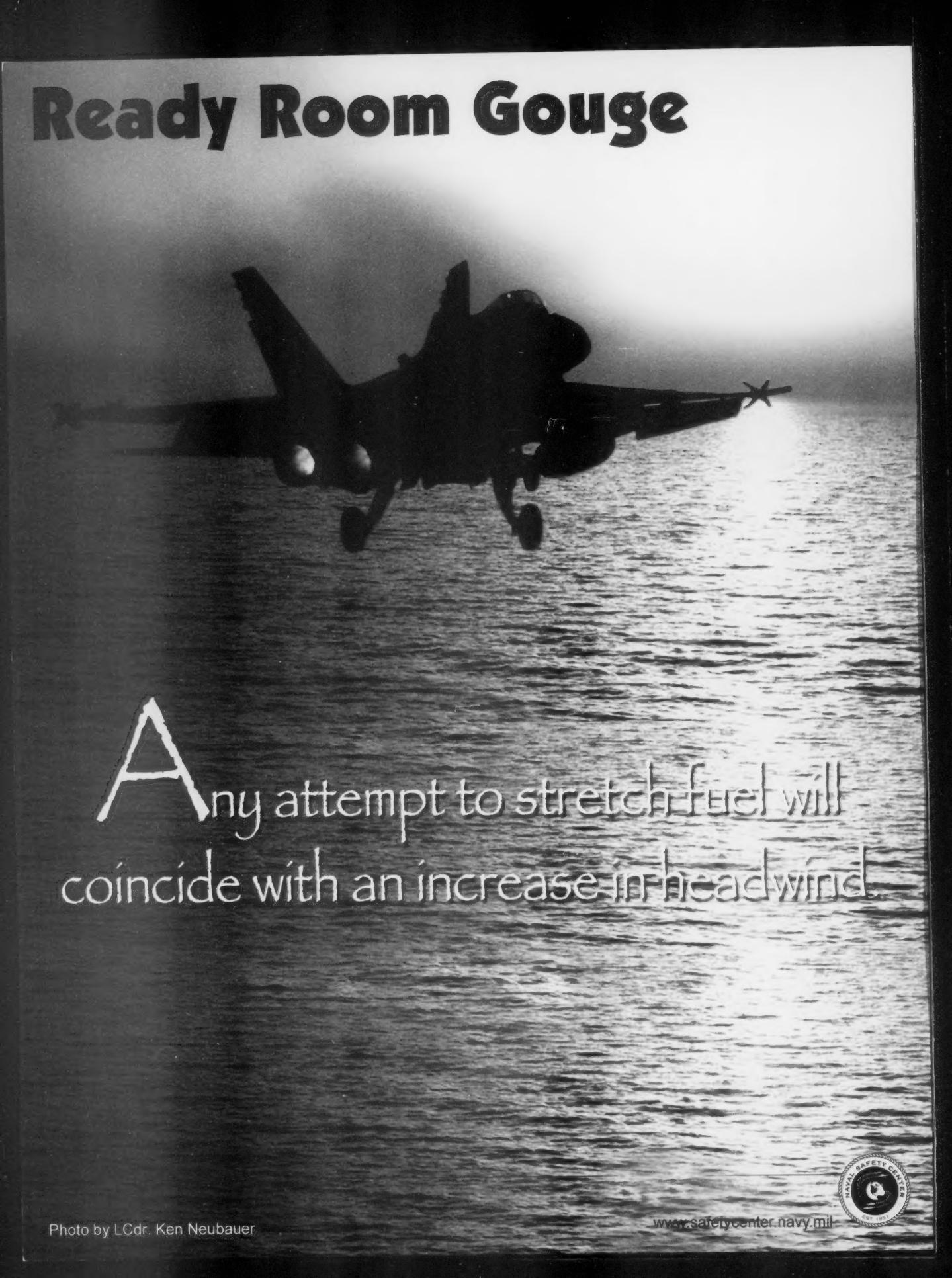


Same brief, different day. Every nuance of this business becomes second nature allowing the aviator to free up his mind and deal with other pressing issues . . .



COM-PART-MEN-TAL-IZE (Kem part men't'liz'), Naval Aviation. To concentrate on the task at hand!

Ready Room Gouge



Any attempt to stretch fuel will coincide with an increase in headwind.



